

Organizing Committee

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Society of Exploration Geophysicists
The international society of applied geophysics

SEG SUMMER RESEARCH WORKSHOP

FWI Applications from Imaging to Reservoir Characterization



Society of Exploration Geophysicists
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Schlumberger • Houston, Texas, USA

13–15 July 2015

Workshop Schedule

Monday, 13 July 2015

8:00–9:00 **Registration**
9:00–9:25 **Opening and Welcome** Denes Vigh/Paul Williamson
9:15–9:55 **Keynote 1:** Joseph Reilly

► **Session 1: FWI Case Histories; Importance of Acquisition**

Session Chairs: Paul Williamson, Felix Herrmann

9:55–10:20 **Full-waveform inversion of FAZ simultaneous long-offset dual-sensor data** Alejandro Valenciano
10:20–10:45 **Application of Waveform Tomography at Campos Bain Field, Brazil** Mauricio Pedrassi
10:45–11:00 Coffee Break
11:00–11:25 **Full waveform inversion applied to Gulf of Mexico wide azimuth long offset data** Jing Chen
11:25–11:50 **The impact of ultra-long offsets on full waveform inversion in deep water Gulf of Mexico** Ruosen Qian
11:50–12:15 **Using full waveform inversion to improve the image beneath a mass-transport complex in East Breaks, Gulf of Mexico** Bai Bing
12:15–12:45 Discussion
12:45–13:45 Lunch Break

► **Session 2: Going deeper: Using Reflections in FWI**

Session Chairs: Mike Warner

13:45–14:25 **Keynote 2:** Jerry Kapoor
14:25–14:50 **Using primary and multiple reflections for automatic imaging and velocity estimation** Eric Verschuur
14:50–15:30 Coffee Break
15:30–15:55 **Reflection full waveform inversion for a wide-azimuth dataset in the Gulf of Mexico** Kathy Zou
15:55–16:20 **Full Waveform Inversion based on wavefield decomposition** FWI with a pinch of Salt? Fang Wang
16:20–16:45 **Reflection based Waveform Inversion** Dong Sun
16:45–17:30 Discussion

Tuesday, 14 July 2015

► **Session 3: Improving Robustness in FWI: Objective Functions and Constraints**

Session Chairs: Alejandro Valenciano, Drew Benders

8:30–9:10 **Keynote 3:** Uwe Albertin
9:10–9:35 **Adaptive Waveform Inversion** Dr. Mike Warner
9:35–10:00 **A misfit function for full waveform inversion based on adaptive matching filter** Dr. Hejun Zhu
10:00–10:25 **Analysis of influence from short listening time for Laplace - domain waveform inversion** Jungkyun Shin

10:25–10:40 Coffee Break
10:40–11:05 **Adjustive Full Waveform Inversion** Kun Jiao
11:05–11:30 **Full waveform inversion with sparsity constraint in the seislet domain** Zhiguang Xue and Hejun Zhu
11:30–11:55 **Joint seismic traveltimes, waveform envelope and full waveform inversion** Jie Zhang
11:55–12:30 Discussion
12:30–13:45 Lunch Break

► **Session 4: Multiparameter inversion: Towards the reservoir**

Session Chairs: Partha Routh, Eric Verschuur

13:45–14:25 **Feedback Denver Workshop** Dimitri Bevc and Mortiz Fliedner
14:25–14:50 **Expedited FWI of microseismic data for mapping velocity changes and hypocenters** Jyoti Behura
14:50–15:15 **A new approach of visco-acoustic waveform inversion in the time domain** Dr. Xin Cheng
15:15–15:35 Coffee Break
15:35–16:00 **Anisotropic full waveform inversion of multicomponent seismic data – a transition from 1D to 3D** Subhashish Mallick
16:00–16:25 **Full waveform Inversion for Reservoir Characterization** Burghley Pre-Function Dries Gisolf
16:25–16:50 **Elastic full wave-field inversion for the near-surface including surface-waves** Gabrio Rizzuit and Dries Gisolf
16:50–17:30 Discussion, Wrap-Up

Wednesday, 15 July 2015

► **Session 5: FWI with a Pinch of Salt?**

Session Chairs: Denes Vigh, Uwe Albertin

8:30–9:10 **Keynote 4:** BP
9:10–9:50 **Feedback Beijing Workshop** Jie Zhang
9:50–10:15 **Anisotropic joint migration inversion** Abdulrahman Alsuhal
10:15–10:30 Coffee Break
10:30–10:55 **Automatic salt flooding with constrained wavefield reconstruction inversion** Felix Herrmann
10:55–11:20 **3D Salt geometry inversion in full-waveform inversion using a level set approach** Winston Lewis,
11:20–11:55 **Top of salt impact analysis on full waveform inversion** Kai Wang
11:55–12:30 Discussion
END OF WORKSHOP

**The schedule is subject to change.*